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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,739	10/01/2004	Hung-Hsiang Chang	MTKP0105USA	5738

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION  
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EXAMINER

PHAM, VAN T

ART UNIT PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/711,739

Applicant(s)

CHANG ET AL.

Examiner

VAN T. PHAM

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation “the component influenced by the velocity of the sled actuator and/or the pickup head is the product of the velocity and a first multiplier”; “the first multiplier is a variable determined by the number of tracks remained to be crossed and the velocity of the sled actuator and/or the pickup head”; “the component influenced by the acceleration of the sled actuator and/or the pickup head is the product of the acceleration and a second multiplier” and “the second multiplier is a variable determined by the number of tracks remained to be crossed and the velocity of the sled actuator and/or the pickup head” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-10, 12-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 12 recite the limitation "the movement of the sled actuator" in line 2, 4, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the product of the velocity and a first multiplier" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 3, 7, 14, 17 recite the limitation "the component influenced by the velocity of the sled actuator" in lines 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 4-6, 8-10, 13, 15-16, 18-20 fall with parent claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hung et al. (Us 6.606,282).

Regarding claim 1, Hung et al. discloses a method for controlling long seeking operation in an optical disc drive, the optical disc drive comprising a sled actuator, a pickup head installed on the sled actuator for accessing data on an optical disc, and a controller for controlling the sled actuator to move together with the pickup head, the method comprising:

(a) receiving remaining tracks information indicating a number of tracks remained to be crossed by the sled actuator and/or the pickup head (see Fig. 5, track count sensor 521 and its description);

(b) receiving velocity information indicating a velocity of the sled actuator and/or the pickup head (see Fig. 5, sled actuator 508);

(c) receiving acceleration information indicating an acceleration of the sled actuator and/or the pickup head (see Figs. 5-6 and cols. 4-6);

(d) driving the sled actuator to move according to the remaining tracks information, the velocity information, and the acceleration information (see Fig. 5 and abstract, cols. 2-3).

Regarding claim 2, see Fig. 5, discloses the method of claim 1 wherein in step (d), the controller outputs a driving voltage to control the movement of the sled actuator and/or the pickup head; the driving voltage is a function of the velocity and the acceleration of the sled actuator and/or the pickup head.

Regarding claim 3, see Fig. 5, discloses the method of claim 2 wherein in the driving voltage, the component influenced by the velocity of the sled actuator and/or the pickup head is the product of the velocity and a first multiplier.

Regarding claim 4, see Fig. 5, track count sensor and velocity estimator, discloses the method of claim 3 wherein the first multiplier is a variable determined by the number of tracks remained to be crossed and the velocity of the sled actuator and/or the pickup head.

Regarding claim 5, see Figs. 5-6 and col. 4, discloses the method of claim 3 further comprising: (e) decreasing the first multiplier with the controller when the number of tracks remained to be crossed decreases.

Regarding claim 6, see Figs. 5-6 and col. 4, discloses the method of claim 3 further comprising: (f) decreasing the first multiplier with the controller when the velocity of the sled actuator and/or the pickup head increases.

Regarding claim 7, see Figs. 5-6 and col. 4, discloses the method of claim 2 wherein in the driving voltage, the component influenced by the acceleration of the sled actuator and/or the pickup head is the product of the acceleration and a second multiplier.

Regarding claim 8, see Figs. 5-6 and col. 4, discloses the method of claim 7 wherein the second multiplier is a variable determined by the number of tracks remained to be crossed and the velocity of the sled actuator and/or the pickup head.

Regarding claim 9, see Figs. 5-6 and col. 4, discloses the method of claim 7 further comprising: (g) increasing the second multiplier by the controller when the number of tracks remained to be crossed decreases.

Regarding claim 10, see Figs. 5-6 and col. 4, discloses the method of claim 7 further comprising: (h) decreasing the second multiplier by the controller when the velocity of the sled actuator and/or the pickup head increases.

Regarding claim 11, see Fig. 5, discloses method of claim 1 further comprising: outputting an initial driving voltage to the sled actuator with the controller according to target tracks in order to control an initial movement of the pickup head.

Regarding claim 12, see rejection above of claim 1.

Regarding claim 13, see rejection above of claim 2.

Regarding claim 14, see rejection above of claims 3 and 4.

Regarding claims 15-16, see rejection above of claims 5, 6, respectively.

Regarding claim 17, see rejection above of claims 7 and 8.

Regarding claims 18-20, see rejection above of claims 9-11, respectively.

#### *Cited References*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references relate to a method for long seeking control of an optical read/write head which includes a sled moved by a sled motor, and lens mounted on the sled (Chan et al. 2003/0099166); A long seek control system and method include a reference velocity mapping unit that obtains a reference velocity when the dual actuator is moved by the residual track count (Hung et al. 2002/0196715).

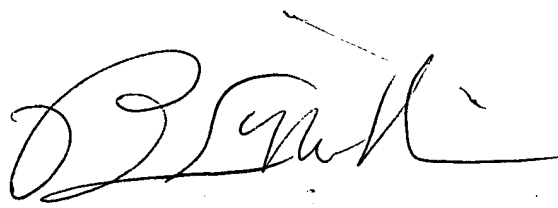
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN T. PHAM whose telephone number 571-272-7590. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP



Patent Examiner  
1/22/07